

ABSTRACT

5 A print engine/controller (10) configured to be coupled with others to drive an ink drop printhead (33). It has an interface (27) at which to receive compressed page data. Image decoders (28, 88) decode compressed image planes image decoders to perform an expansion, in pipeline fashion, for the received compressed page data. A half-toner/compositer (29) composites respective strips of the decoded image planes and sends output to a printhead interface (32). A printhead interface (32) interfaces with the
10 printhead. A synchronization signal generator (89, 90) may output a synchronization signal that is used to synchronize print engine/controllers. One printhead interface (32) preferably acts as master generating the synchronization signal to synchronize all the print engine/controllers to drive the printhead at any one or more of higher speed, higher input resolution, higher outlet resolution or wider format. The printhead interface comprises two LineSyncGen units, a first LineSyncGen unit providing a synchronization signal
15 for multiple print engine/controller chips and a second LineSyncGen unit adapted to pulse a paper drive stepping motor.

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